**National Action Plans and Regional Promotion on the Use of Biological Control Agents (BCA)**

**Why did we initiate the project?**
- Over- and misuse of synthetic pesticides threatens food safety and occupational health.
- Environmentally friendly substitutes for highly toxic synthetic pesticides are not sufficiently available in the market.
- Supporting ASEAN’s mission of a more sustainable agriculture.
- Addressing gaps in regulatory policy on biocontrol in ASEAN Member States and supporting regional harmonization.

**What did we do to improve the situation?**
- Formation of national working groups, including representatives from relevant government agencies, universities, and private sector.
  - **Task:** To discuss and provide recommendations on how to support and expand the use of biocontrol agents on a national level.
  - **Establishment of a regional technical expert group on biocontrol, including continuous representation by at least 8 ASEAN Member States.**
  - **Task:** To discuss and draft a regional level guidance document for the ‘regulation, use and trade of biological control agents’.
  - **Science-based back-up of technical guidance with data and experiences from field demonstrations of BCA, and research on biocontrol in selected crops and countries.**
  - **Endorsement of policy recommendations at regional and national levels.**

**WHAT ARE THE RESULTS?**
- ASEAN Guidelines on the Regulation, Use and Trade of Biological Control Agents endorsed by ASEAN Ministers on Agriculture and Forestry (AMAF) in 2015.
- National Action Plans developed or national legislation implemented in:
  - Brunei Darussalam: Promotion of BCA in horticulture.
  - Indonesia: Regulatory improvements, promotion of BCA in horticulture, etc.
  - Lao PDR: Amendements to pesticide law.
  - Malaysia: Regulatory improvements.
  - Myanmar: National Action Plan on promotion of BCA.
  - Philippines: Regulatory improvements under Organic Act.
  - Cambodia: BCA registration form, private sector investment, e.g. EcoAgri Center.
  - Vietnam: Circular 21, amendment to pesticide law.

**WHICH FACTORS MADE THE PROJECT A SUCCESS?**
- Bringing together representatives and experts from different ASEAN Member States and agencies to foster information exchange and mutual understanding towards a common goal: in this case, promotion of biocontrol and regional harmonization of a strategy (intervention at regulatory/legislative and field level).
- High demand of guidance on sustainable agriculture among policy makers and private sector.
- Availability of concept-proofed technologies, practices, and interventions.

**What could be done to improve the project?**
- Project cycles are usually too short to sustain a regional effect: follow-up needed, in particular in support of implementation at national level.

**What is the long-term outlook?**
- Success of biocontrol in the region (more availability and use of BCA) will greatly depend on the engagement of the private sector, since they create markets and dictate inputs in the agricultural sector. Current trends in market expansion of BCA look promising.
- Better collaboration between governments and private sector is needed to make expansion of BCA possible, a major point outlined by the guidance document.

**Ms. Sri Wijayanti Yusuf, Executive Secretary, Directorate General of Horticulture, Ministry of Agriculture, Indonesia:**
“...There is a strong policy from the Government and the President to develop organic village. The Government concerns about this. We have to maintain healthier and better ecosystem. We have to start using the bio-fertiliser and encourage farmers to apply it, and encourage consumers and communities to become more and more aware about their health and the environment.”

**Ms. Amaniah Besar, Plant Entomologist, Brunei Darussalam:**
“It is important for Brunei Darussalam to start introducing the use of BCA in the country. Farmers need to reduce the heavy reliance on synthetic pesticides as these are detrimental to their health and safety, environment and also the consumers. This issue has been raised in the recent Legislative Council, whereby the use of pesticide alternative is profoundly encouraged. Brunei Government through the Department of Agriculture and Agroindustries recognized the importance of BCA introduction and its application into our agricultural system.”

**Mr. Peov Meas, Chief of Biotechnology Laboratory (Biofertiliser Quality Control) of National Agriculture Laboratory, General Directorate of Agriculture, Ministry of Agriculture, Forestry and Fisheries of Cambodia:**
“In Cambodia, farmers use a lot of chemical pesticides and fertilisers because they expect fast results, and the government is being aware of it and putting the promotion of biocontrol agents onto the table. However, the farmers complain about the low quality of the biocontrol agent products, and we find out that, first, there are a lot of counterfeit biocontrol agents products, particularly along the borders, and second, the registered biocontrol agent products do not match their claims on the labels. We need to improve our facility, and technical know-how to test the biocontrol agent products. We need advisory assistance.”
Policy Dialogues to support the Implementation of Food Security and Nutrition Policy

Why did we initiate the initiative?

Food price crisis in 2007-2008 drove millions of vulnerable people into hunger and poverty. In response, ASEAN community pledged to permanently embrace food security policy as a top priority and adopted the ASEAN Integrated Food Security (AIFS) Framework and Strategic Plan of Action on Food Security in the ASEAN region (SPA-FS).

Despite these adopted policies, it has proven to be challenging to get the high level initiatives implemented by national and local governments. The policy dialogues, therefore, aim to support the implementation of the AIFS Framework and its SPA-FS at national level.

What did we do to improve the above mentioned situation?

Organized high-level policy dialogues on food security and nutrition in Cambodia, Lao PDR, Myanmar and Thailand with the objectives to:

1. Raise awareness on AIFS Framework and SPA-FS, 2015-2020;
2. Raise awareness on the national food security and nutrition policies and strategies;
3. Discuss and identify issues and challenges to implement AIFS Framework as well as national policy and strategies relevant to food security and nutrition in respective countries. The issues and challenges can be overcome through the promotion and implementation of sustainable agrifood systems as part of national policies and strategies on food security and nutrition;
4. Clarify collaborative mechanism to implement the AIFS Framework through national multi-stakeholder dialogue platforms.

Outcomes and impacts from the implementation of national policy and strategies on food security and nutrition (FSN) are as follows:

1) Fostered common understanding and awareness on the AIFS Framework and national policies and contribution of sustainable agrifood systems at national level;
2) Discussed issues, challenges and activities in implementing the AIFS Framework through the promotion and contribution of sustainable agrifood systems at national level;
3) Enabled participating agencies to shape collaborative solutions reflecting their specific priorities and objectives in the context of food security and nutrition; and
4) Clarified national collaborative mechanism to implement AIFS Framework and national policies on food security and nutrition through improving sustainable food production. These include wider sharing of food security and nutrition information, awareness raising on healthy diet and lifestyles, particularly in young generation, better alignment of collaboration and partnership with development organizations and donors.

WHICH FACTORS MADE THE PROJECT A SUCCESS?

Relevant government agencies have awareness and understanding on the importance of the implementation of food security and nutrition policy at national level. Therefore, high-level representatives from related ministries and government agencies participated in the dialogue.

High-level representatives from related ministries and government agencies have shown their commitment in collaborating for the implementation of food security and nutrition policy at national level.

What could be done to improve the initiative?

1. Relevant government agencies have awareness and understanding on the importance of the implementation of food security and nutrition policy at national level.
2. Outcomes and impacts from the implementation of national policies and strategies on food security and nutrition (FSN) at national level will contribute to progress and achievement in addressing FSN at regional and global levels.
3. A clear national policy on food security and nutrition has been converted into action plans at national and local levels.
4. Outcomes and impacts from the implementation of national policy and strategies on food security and nutrition (FSN) at national level will contribute to progress and achievement in addressing FSN at regional and global levels.
ASEAN SUSTAINABLE AGRIFOOD SYSTEMS

The transformation process from MOSA to MOSA for ASEAN is a joint initiative of several GIZ ASEAN regional Capacity development with regard to Sustainable Agriculture aspects is required from the member states. The involvement of the ASEAN Secretariat along with AWGATE, the sectoral working group in charge has following the pilot training, individual country activities were planned with the selected experts, which will ensure know-how multipliers.

A preparation workshop took place with a regional expert team who did the revisions, followed by a pilot training Training and Extension (AWGATE).

In order to be able to apply and disseminate MOSA in the ASEAN region the existing global training modules and materials were adapted specifically to the requirements of the ASEAN context, now called MOSA for ASEAN. This was done with selected experts who were supported and guided by the ASEAN Working Group on Agricultural Training and Extension (AWGATE).

A preparation workshop took place with a regional expert team who did the revisions, followed by a pilot training to test the adapted materials. Participants came from six ASEAN Member States (AMS) and were trained to become know-how multipliers.

Following the pilot training, individual country activities were planned with the selected experts, which will ensure the further dissemination and implementation of the MOSA concept.

What did we do to improve the above-mentioned situation?

- Modules on Sustainable Agriculture (MOSA) is a modular training system developed by GIZ to provide an answer to the challenge of understanding the concept of Sustainable Agriculture. MOSA shows the interlinkages between nutrition and food security and the farming system and the environment.
- In order to be able to apply and disseminate MOSA in the ASEAN region the existing global training modules and materials were adapted specifically to the requirements of the ASEAN context, now called MOSA for ASEAN.
- A preparation workshop took place with a regional expert team who did the revisions, followed by a pilot training to test the adapted materials. Participants came from six ASEAN Member States (AMS) and were trained to become know-how multipliers.
- Following the pilot training, individual country activities were planned with the selected experts, which will ensure the further dissemination and implementation of the MOSA concept.

MOSA as a capacity development tool for sustainable agriculture in ASEAN

Why did we initiate the project?

- Agricultural production and agriculture-based value chains are facing a multitude of challenges to satisfy the populations’ growing need for food and raw materials in a resource-conserving, efficient manner while respecting animal welfare and biodiversity in the context of climate change. All this calls for sustainability.
- Farms are economic enterprises where people work and live. Hence, good working conditions, a high quality of life and good economic performance are the pillars of successful farm operations. Sustainable agriculture must fulfill all these criteria in the long term.
- Sustainable Agriculture requires a common understanding and awareness on the part of both the decision-makers and the practitioners.
- The big challenge is to disseminate the knowledge associated with this approach and above all to promote its practical application to the broadest possible spectrum of people.

What could be done to improve the project?

- Enhance the integration of MOSA in further Regional and National Action Plans in order to disseminate the approach on an ever broader basis
- Strengthen and support the national training institutes to ensure a continuous knowledge transfer (e.g. further adaptation to local contexts, translation into further local languages, etc.)
- To bring the theoretical knowledge into practical application, professional support is required to introduce tools to measure the sustainability on farm level
- Organize large-scale multi-stakeholder meetings to ensure a well-functioning knowledge exchange involving policy-makers, extensionists, administrators, researchers, private sectors, farmer leaders, SMEs, etc.
- Anchor MOSA in the private sector to make knowledge-transfer and awareness-raising activities affordable and available to a larger audience.
- Enhance the leadership skills of all stakeholders to ensure an effective knowledge-transfer and an efficient transfer of theory into practice.

WHAT ARE THE RESULTS?

- 17 adapted MOSA for ASEAN modules, a training course curricula and a reader have been developed and are ready to be used and available on ASEAN SAS Website (www.asean-agrifood.org/resources)
- 14 experts from 6 different AMS have been trained as regional Know-how Multipliers, who are able to spread the MOSA concept in provide advice on the topics as well as implement workshops in their respective local language.
- AWGATE has recognized MOSA for ASEAN as one of the informative sources for capacity development in the ASEAN region. To enhance and promote its implementation, AWGATE has actively supported its dissemination via national training institutes and will continue its support for further efforts in effectively disseminating knowledge regarding sustainable agriculture and underline the continuation of capacity development according to the PoA (Plan of Action) of AWGATE (2017-2020).
- The AMS have taken action: Enquiries from participants show that they have already started to implement the planned follow-up activities in their countries, including conducting workshops, supporting policy advice/development activities, applying the specific MOSA concept and/or sharing the concept/material.
- Examples for successful dissemination:
  - Philippines: A national multiplier-training course was conducted on October 2016, and the modules on Sustainability and Climate Change Adaptation have been integrated into the training of the Climate Smart Farm Business School.
  - Thailand: The MOSA modules were included in the training courses organized for AMS by the Department of Agricultural Extension, e.g. IPM in Vegetables, Organic Vegetables for Production and Marketing and Sufficiency Economic Philosophy (SEP).
  - Indonesia: The Sustainability module was included in the Sustainable Coffee programme.
- A platform to discuss concepts and exchange experiences of sustainable agriculture among the AMS is being created and will soon be available

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WHICH FACTORS MADE THE PROJECT A SUCCESS?

- Topics like Sustainability and Sustainable Agriculture are in strong demand, especially since the definitions and the understanding of this concept have often varied widely on the part of stakeholders. The MOSA tool thus now enjoys high interest.
- The involvement of the ASEAN Secretariat along with AWGATE, the sectoral working group in charge has allowed access to regional experts and the national governmental training institutes of all 10 AMS.
- The transformation process from MOSA to MOSA for ASEAN is a joint initiative of several GIZ ASEAN regional projects and AWGATE, with a clear distribution of responsibilities and activities between the various parties involved. There is a strong ownership of the ASEAN Member States and a strong willingness to apply MOSA for ASEAN.
- Capacity development with regard to Sustainable Agriculture aspects is required from the member states.

What is the long-term outlook?

Solid integration of MOSA for ASEAN in different institutions of the ASEAN Member States, as well as a strong awareness and understanding of the practical application of Sustainable Agriculture throughout the ASEAN region.

Participation in the TOT on MOSA in the Philippines was one of my most excellent experiences ever. Using MOSA as a subject in the training courses hosted by my Department for AMS, I can touch confirm that it really creates awareness of the significance of sustainable agriculture. It will be most useful and widely disseminated once it has been translated into the national language of each AMS and built on with the supplement conveying the knowledge of how to practice agriculture in a sustainable manner with the appropriate modern technology such as Climate Smart Agriculture, Precision Farming and line technology, including demonstrative example cases.”

USA THONGJANG, Chief of Foreign Relations Group, Planning Division, Department of Agricultural Extension

Location ASIAN - regional
Partner ASEAN Working Group on Agricultural Training and Extension (AWGATE)
BIZ Sector Project Sustainable Agriculture (by NAREEN)
ASEAN Regional projects (Standards in the South East Asian Food Trade (SAFT) and FOR CC (Forestry and Climate Change)